

Project Description:

The project analyzes Instagram user engagement and interaction data to provide actionable insights that guide business and product development strategies. Insights from this analysis will support various teams to make data-informed decisions for future enhancements.

Approach:

The project is executed using SQL to sort and extract data using queries implemented to obtain the required insights.

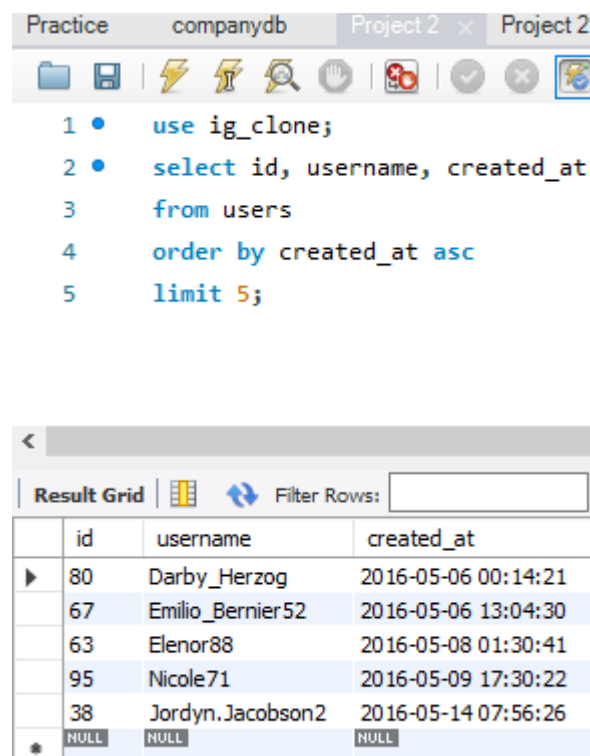
Tech-Stack used:

The tech stack used in this project included MySQL Workbench v8.0.30.0. It is a great tool for implementing queries, easy to access, and simple GUI.

Insights:

A. Marketing Analysis:

1. Loyal User Reward: Identifying the five oldest users on Instagram from the provided database.



The screenshot shows the MySQL Workbench interface. The top toolbar includes icons for file operations, execution, and navigation. The SQL editor contains the following query:

```
1 • use ig_clone;
2 • select id, username, created_at
3   from users
4  order by created_at asc
5  limit 5;
```

Below the editor, the 'Result Grid' tab is active, displaying the results of the query in a table format. The table has three columns: 'id', 'username', and 'created_at'. The results are as follows:

	id	username	created_at
▶	80	Darby_Herzog	2016-05-06 00:14:21
	67	Emilio_Bernier52	2016-05-06 13:04:30
	63	Elenor88	2016-05-08 01:30:41
	95	Nicole71	2016-05-09 17:30:22
	38	Jordyn.Jacobson2	2016-05-14 07:56:26
✱	NULL	NULL	NULL

2. Inactive User Engagement: to identify users who have never posted a single photo on Instagram.

Practice companydb Project 2* x Project 2 Dataset

Limit to 1000 rows

```
8 • select users.id, username
9 from users
10 left join photos on users.id = photos.user_id
11 where photos.user_id is null;
12
```

Result Grid | Filter Rows: | Export: | Wrap C

	id	username
▶	5	Aniya_Hackett
	7	Kassandra_Homenick
	14	Jadyn81
	21	Rocio33
	24	Maxwell.Halvorson
	25	Tierra.Trantow
	34	Pearl7
	36	Ollie_Ledner37
	41	Mckenna17
	45	David.Osinski47
	49	Morgan.Kassulke
	53	Linnea59
	54	Duane60

Result 4 v

Practice companydb Project 2* x Project 2 Dataset

Limit to 1000 rows

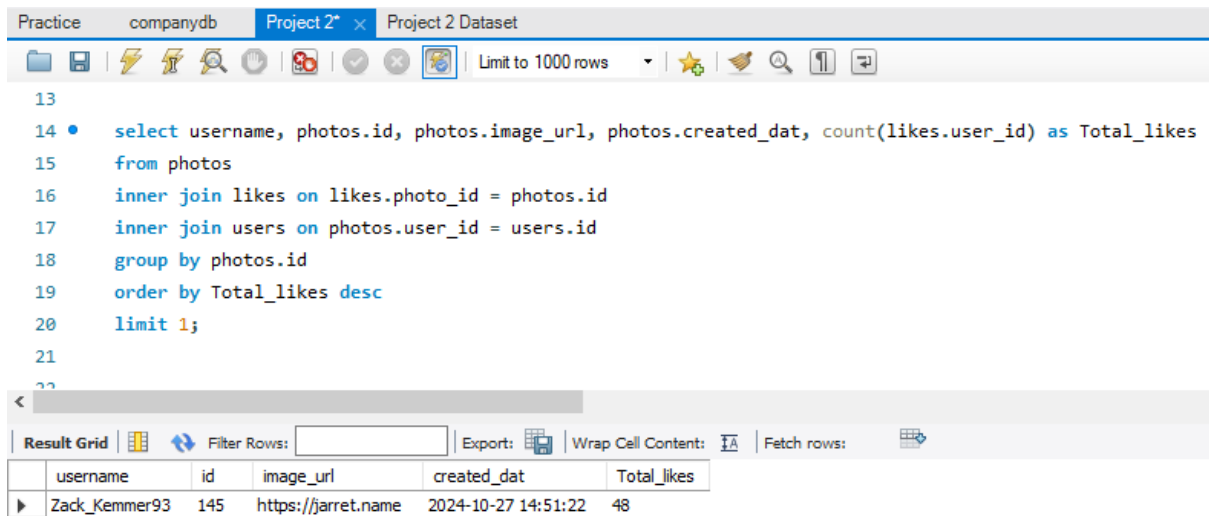
```
8 • select users.id, username
9 from users
10 left join photos on users.id = photos.user_id
11 where photos.user_id is null;
12
```

Result Grid | Filter Rows: | Export: | Wrap C

	id	username
	57	Julien_Schmidt
	66	Mike.Auer39
	68	Franco_Keebler64
	71	Nia_Haag
	74	Hulda.Macejkovic
	75	Leslie67
	76	Janelle.Nikolaus81
	80	Darby_Herzog
	81	Esther.Zulauf61
	83	Bartholome.Bernhard
	89	Jessyca_West
	90	Esmeralda.Mraz57
	91	Bethany20

Result 4 v

- Contest Winner Declaration: to determine the winner of the contest and to provide their details to the team.



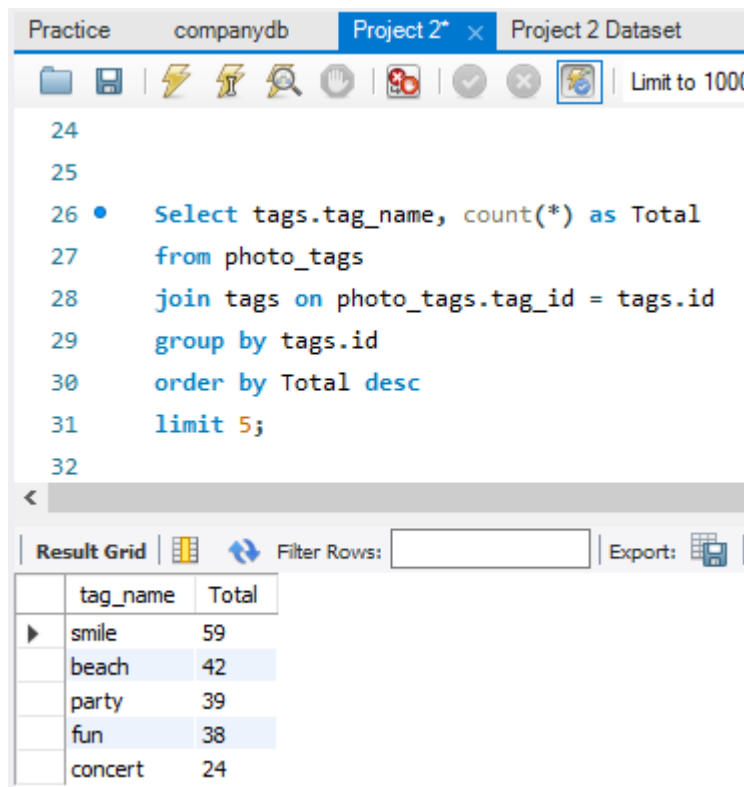
The screenshot shows a database interface with a tab labeled "Project 2*" and "Project 2 Dataset". The SQL query is as follows:

```
13
14 • select username, photos.id, photos.image_url, photos.created_dat, count(likes.user_id) as Total_likes
15 from photos
16 inner join likes on likes.photo_id = photos.id
17 inner join users on photos.user_id = users.id
18 group by photos.id
19 order by Total_likes desc
20 limit 1;
21
22
```

The result grid shows the following data:

username	id	image_url	created_dat	Total_likes
Zack_Kemmer93	145	https://jarret.name	2024-10-27 14:51:22	48

- Hashtag Research: to identify and suggest the top five commonly used hashtags on the platform.



The screenshot shows a database interface with a tab labeled "Project 2*" and "Project 2 Dataset". The SQL query is as follows:

```
24
25
26 • Select tags.tag_name, count(*) as Total
27 from photo_tags
28 join tags on photo_tags.tag_id = tags.id
29 group by tags.id
30 order by Total desc
31 limit 5;
32
```

The result grid shows the following data:

tag_name	Total
smile	59
beach	42
party	39
fun	38
concert	24

5. Ad Campaign Launch: to determine the day of the week when most users registered on Instagram.

The screenshot shows a SQL query editor with the following query:

```
32
33 • Select dayname(created_at) as Day, count(*) as Total
34 from users
35 group by Day
36 order by Total desc
37 limit 1;
38
```

Below the query, the result grid is displayed with the following data:

Day	Total
Thursday	16

B. Investor Metrics:

1. User Engagement: to calculate the average number of posts per user on Instagram and also to provide the total number of photos on Instagram divided by the total number of users.

The screenshot shows a SQL query editor with the following query:

```
38
39
40
41 • Select (select count(*) from photos) / (select count(*) from users) as Avg;
42
43
44
```

Below the query, the result grid is displayed with the following data:

Avg
2.5700

2. Bots and Fake Accounts: to identify users (potential bots) who have liked every single photo on the site, as this is not typically possible for a normal user.

Practice companydb Project 2* x Project 2 Dataset

Limit to 1000 rows

```
42
43 • select user_id, count(*) as Num_of_likes
44   from likes
45  group by user_id
46  having Num_of_likes = (select count(*) from photos);
47
48 • Select users.username, count(*) as Num_of_likes
49   from users
50  join likes on users.id = likes.user_id
51  group by users.id
52  having Num_of_likes = (select count(*) from photos);
53
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content

	username	Num_of_likes
▶	Aniya_Hackett	257
	Jadyn81	257
	Rocio33	257
	Maxwell.Halvorson	257
	Ollie_Ledner37	257
	Mckenna17	257
	Duane60	257

Result 9 x

Practice companydb Project 2* x Project 2 Dataset

Limit to 1000 rows

```
42
43 • select user_id, count(*) as Num_of_likes
44   from likes
45  group by user_id
46  having Num_of_likes = (select count(*) from photos);
47
48 • Select users.username, count(*) as Num_of_likes
49   from users
50  join likes on users.id = likes.user_id
51  group by users.id
52  having Num_of_likes = (select count(*) from photos);
53
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content

	username	Num_of_likes
	Duane60	257
	Julien_Schmidt	257
	Mike.Auer39	257
	Nia_Haag	257
	Leslie67	257
	Janelle.Nikolaus81	257
	Bethany20	257